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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DUNWOODY, AARON M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,645

Applicant(s)

CRESTIN ET AL.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-27 is/are pending in the application.
- 4a) Of the above claim(s) 16, 25 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-15, 17-24 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Newly submitted claims 16, 25 and 27 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Arranging the coupling bushing on the cylindrical element with the first nut strips can face in a second direction as opposed to a first direction

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16, 25 and 27 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

The drawings were received on 9/29/2003. These drawings are approved.

Specification

The amendment filed 9/29/2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the method of fixing a cylindrical element. Therefore, the substitute specification will not be entered.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

Claims 5-27 are objected to because of the following informalities: Replace all appearance of "indward" or "indwardly" with "inward" or "inwardly", respectively, in the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 16, 25 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, the method of fixing a cylindrical element was not disclosed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

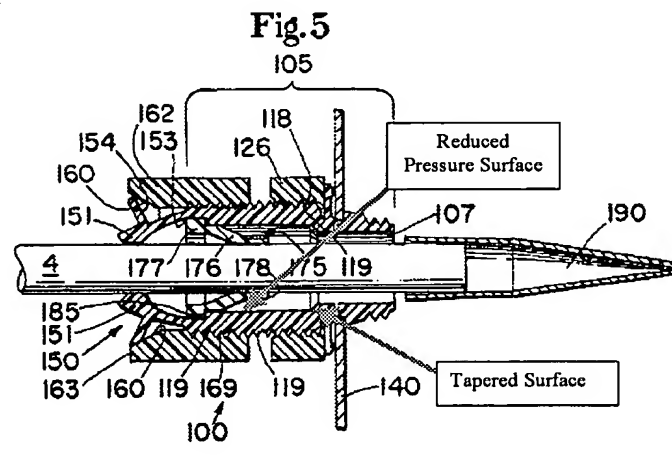
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-9, 15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 5866853, Sheehan in view of US patent 3980325, Robertson.

In regards to claim 5, Sheehan discloses a device for axially maintaining a cylindrical element (4), the device comprising:

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a coupling bushing (105) comprising external threads (119), first nut strips (15) which extend axially beyond the external threads, and a first internal pressure surface (see Figure 5 below);



a covering nut (62) comprising a second internal pressure surface (160) configured to engage and deform ends of the first nut strips radially inwardly and towards the cylindrical element when the cylindrical element is introduced into the coupling bushing and the covering nut; and

a sleeve (175) comprising an external diameter which is at most equal to an internal diameter of the coupling bushing. Sheehan does not disclose a sleeve provided with nut strips. Robertson teaches a sleeve (12) provided with nut strips "to further improve the seal action of the fitting" (col. 3, lines 58-59). As Robertson relates to a fitting for use with pipe or conduit, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a sleeve with nut strips to further improve the seal action of the fitting, as taught by Robertson.

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In regards to claim 6, Sheehan discloses the cylindrical element comprising a cable.

In regards to claim 7, Sheehan in view of Robertson disclose the first and second internal pressure surfaces being configured (capable) to cause the first and second nut strips to be anchored in the cylindrical element when the covering nut is tightened.

In regards to claim 8, Sheehan discloses the first and second (see Figure 5 above) internal pressure surfaces comprising tapered surfaces.

In regards to claims 9 and 19, Sheehan in view of Robertson discloses the claimed invention except for the first and second internal pressure surfaces comprising tapered surfaces which face in opposite directions. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the first and second internal tapered pressure surfaces in opposite directions, since the reversal of components in a prior art reference, where there is no disclosed significance to such reversal, is a design consideration within the skill of the art. In re Gazda, 219 F.2d 449, 104 USPQ 400 (CCPA 1955); In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

In regards to claim 15, Sheehan discloses the covering nut comprising internal threads configured to threadably engage the external threads of the coupling bushing.

In regards to claim 17, Sheehan in view of Robertson discloses a device for fixing a cable to a plug or a socket, the device comprising:

a coupling bushing comprising external threads, first strips which extend axially from one end of the coupling bushing, and a first internal tapered pressure surface;

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a nut comprising internal threads and a second internal tapered pressure surface configured to engage and deform ends of the first strips radially inwardly;

the internal threads of the nut being configured to threadably engage the external threads of the coupling bushing;

a sleeve comprising second strips which extend axially from one end of the sleeve; and

the sleeve being configured to slide within the coupling bushing, wherein the first internal tapered pressure surface is configured to engage and deform ends of the second strips radially inwardly when the nut moves towards the coupling bushing.

In regards to claim 18, Sheehan discloses the first and second internal tapered pressure surfaces being configured to cause the first and second strips to be anchored in the cable when the nut is tightened onto the coupling bushing.

Claims 10-14, 20-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheehan in view of Robertson, in further view of US patent 4250348, Kitagawa.

In regards to claims 10-12 and 20-22, Sheehan in view of Robertson discloses the claimed invention except for a tubular packing seal intended to be inserted in the final position between the cylindrical element, the sleeve and the strips of the coupling bushing. Kitagawa teaches a tubular packing seal (11) "to provide a locking device which has a high reliability in such as water-proofing, oil-proofing and dust-proofing" (col. 1, lines 56-59). As Kitagawa relates to a locking device for fixing to a supporting

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member linear articles such as cabtyre cables or other cables, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a tubular packing seal to provide a locking device which has a high reliability in such as water-proofing, oil-proofing and dust-proofing, as taught by Kitagawa.

In regards to claims 13 and 23, in Figure 6, Kitagawa discloses the packing seal comprising a first part having a first external diameter and a second part having a different second external diameter.

In regards to claims 14 and 24, in Figure 6, Kitagawa discloses the first diameter being smaller than the second diameter, wherein the first diameter corresponds substantially to an internal diameter of the sleeve, and wherein the second diameter corresponds substantially to the internal diameter of the coupling bushing.

In regards to claim 26, Sheehan in view of Robertson, in further view of Kitagawa, disclose a device for fixing a cable to a plug or a socket, the device comprising:

- a coupling bushing comprising external threads, first strips which extend axially from one end of the coupling bushing, and a first internal tapered pressure surface;

- a nut comprising internal threads and a second internal tapered pressure surface configured to engage and deform ends of the first strips radially inwardly;

- the internal threads of the nut being configured to threadably engage the external threads of the coupling bushing;

- a sleeve comprising second strips which extend axially from one end of the sleeve; the sleeve being configured to slide within the coupling bushing; and

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a tubular packing seal adapted to be inserted partially into the sleeve and the coupling bushing,
wherein the first internal tapered pressure surface is configured to engage and deform ends of the second strips radially inwardly when the nut moves towards the coupling bushing.

Response to Arguments

Applicant's arguments filed 9/29/2003 have been fully considered but they are not persuasive. The Applicant argues:

To the contrary, it is clear from Fig. 5 that the coupling bushing 119 lacks any internal pressure surface, much less, one that is configured to engage and deform ends of the second nut strips radially inwardly.

The Examiner disagrees. Figure 5 above clearly illustrates an internal pressure surface configure to engage and deform ends of the second nut strips radially inwardly.

The Applicant argues:

It is also clear that SHEEHAN fails to disclose or suggest a coupling bushing comprising external threads, first strips which extend axially from one end of the coupling bushing, and a first internal tapered pressure surface, wherein the first internal tapered pressure surface is configured to engage and deform ends of the second strips radially inwardly when the nut moves towards the coupling bushing.

The Examiner disagrees. Figure 5 above clearly illustrates a coupling bushing comprising external threads, first strips which extend axially from one end of the coupling bushing, and a first internal tapered pressure surface, wherein the first internal

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tapered pressure surface is configured to engage and deform ends of the second strips radially inwardly when the nut moves towards the coupling bushing.

The Applicant argues:

Thus, the Examiner must acknowledge the instant rejection is based upon the combination of a pipe fitting and an electrical connector system - items which are entirely unrelated to one another. Applicant submits that, contrary to the Examiner's assertions, it would not have been obvious to one of ordinary skill in the art to use a pipe fitting sleeve from a sprinkler system as taught by ROBERTSON on the electrical conduit connector of SHEEHAN.

The Examiner disagrees. In response to applicant's argument that Robertson is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Sheehan recites:

This invention relates to a liquid-tight, strain-relief connector for connecting conduit, cable, wire and the like to a bulkhead such as an electrical box, and, more particularly, to an improved connector having a seal member for facilitating a liquid-tight seal about the conduit, and a grip for securing the conduit within the connector to provide strain relief... It should be noted from the outset that the term "conduit" is intended to encompass not only the common meaning of the term, but also cable, wire, rope, pipe, and other similar structures, as the connector of the present invention may be utilized in a variety of applications.

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Therefore, it would not have been obvious to one of ordinary skill in the art to use a pipe fitting sleeve from a sprinkler system as taught by ROBERTSON on the electrical conduit connector of SHEEHAN.

Applicant argues:

Applicant further notes that ROBERTSON also fails to disclose or suggest a coupling bushing which includes external threads, first nut strips which extend axially beyond the external threads, and a first internal pressure surface wherein the first internal pressure surface is configured to engage and deform ends of the second nut strips radially inwardly and towards the cylindrical element when the cylindrical element is introduced into the coupling bushing and the covering nut.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The Applicant argues:

It is also clear that KITAGAWA fails to disclose or suggest a coupling bushing comprising external threads, first strips which extend axially from one end of the coupling bushing, and a first internal tapered pressure surface, wherein the first internal tapered pressure surface is configured to engage and deform ends of the second strips radially inwardly when the nut moves towards the coupling bushing. Again, pressure surface 6 is merely a groove which receives the packing seal 11 during deformation (see col. 3, lines 3839). It is also clear that this document lacks any disclosure with regard to a sleeve, much less, one comprising second strips

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which extend axially from one end of the sleeve, and the sleeve being configured to slide within the coupling bushing. Nor can it be properly said that, absent any type of sleeve, the packing seal 11 is adapted to be inserted partially into the sleeve and the coupling bushing.

The Examiner disagrees. Kitagawa is full capable of performing the functions cited above. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is (703) 306-3436. The examiner can normally be reached on Monday - Friday between 7:30 am to 4:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.amd



Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3670